

# Combine Harvesters for Wheat and Fleet Management tool

Efficient Harvesting, Smarter Fleet Management

The combine harvester is a modern agricultural machinery designed to perform multiple harvesting operations as threshing, gathering, and winnowing, all in a single process. Available in various sizes, its suitable for crops like wheat, maize, rice, soybean, barley, sunflower, and more.



Combine harvester operating in Sudan

**International Center for Agricultural Research in the Dry Areas (ICARDA)**  
Zewdie Bishaw

✓ This technology is **TAAT1 validated**.
8·8
Scaling readiness: idea maturity 8/9; level of use 8/9

📁 Project adoption **1**  
 Technology integrated in the CREW project, in Ethiopia.

Inclusion assessment **4**

Climate impact **6**
**1**

### Problem

- Traditional manual harvesting is time-consuming and demands significant labor.
- Conventional threshing methods are slow and risk potential grain loss.
- Manual separation of grain from chaff is inefficient, leading to impurities.
- Older methods may have limited capacity, resulting in slower operations.

### Solution

- Combine harvesters automates the harvesting process, reducing the need for manual labor.
- Its offers threshing mechanisms, minimizing grain loss during harvesting.
- Its incorporate separation technologies, ensuring effective grain separation and reducing impurities.
- Help to increases harvesting capacity.

### Key points to design your program

**Combine Harvesters for Wheat and Fleet Management Tool** can be integrated into agricultural mechanization, wheat value chain development, and food security programs to improve harvesting efficiency, reduce post-harvest losses, and optimize machinery utilization through digital fleet management. Its adoption contributes to **SDGs 2 and 8**. To integrate this technology into your project, plan and budget for the following activities and prerequisites:

- Facilitate access** to combine harvesters, fleet management services, and equipment maintenance.
- Establish partnerships** with ICARDA, agro-dealers, mechanization service providers, and agricultural development institutes to support technology deployment.
- Conduct** operator training on combine harvester operation and fleet management, and **monitor** machine utilization, harvesting efficiency, post-harvest losses, and technology adoption.

**56—63 USD**  
 harvesting unit cost per Ha

IP  
 Unknown

Technology from

**ProPAS**

Commodities

Maize, Rice, Wheat, Soybean

Sustainable Development Goals

Categories

Postharvest, Equipment, Land preparation

Best used with

Contract mechanization apps  
See all 1 technologies online

Tested/adopted in

■ Tested & adopted  
 ■ Adopted  
 ■ Tested  
 ■ Testing ongoing

Where it can be used

This technology can be used in the colored agro-ecological zones.

Target groups

Farmers